WO 2004/068642 PCT/US2004/002820

CLAIMS:

5

10

What is claimed is:

1. A conductive terminal capable of being received in a terminal channel defined in an insulative housing and between an electronic component and a circuit board, having a contact portion electrically connecting with the electronic component and a mounting portion electrically connecting with the circuit board via a solder ball, comprising:

a first wall, a second wall connecting with the first wall in a certain angle and a third wall connecting with the second wall in a certain angle and opposite to the first wall, and the mounting portion comprising a first horizontal portion extending and bending from one end of the first wall toward the third wall, and a second horizontal portion on the third wall and corresponding to the first horizontal portion toward the first wall, a gap defined between an end of the second horizontal portion and an end of the first horizontal portion near the second horizontal portion so that the first horizontal portion and the second horizontal portion form a structure for locating the solder ball.

- 2. The conductive terminal of claim 1 in which the first horizontal portion and the second horizontal portion are in a same plane.
- 3. The conductive terminal of claim 2 in which the first horizontal portion, the second horizontal portion and the mounting surface of the insulative housing are in a same plane.
- 4. The conductive terminal of claim 1 in which the first horizontal portion and the second horizontal portion have a certain angle and bend toward the contact portion of the conductive terminal.
- 5. The conductive terminal of claim 1 in which the first horizontal portion defines a first recess at its end thereof and the second horizontal portion defines a second recess at its end thereof, the first recess and the second recess form a locating space receiving the solder ball.

WO 2004/068642 PCT/US2004/002820

6. The conductive terminal of claim 1 in which the contact portion comprises a first spring arm formed on one side of the first wall and a second spring arm formed on one side of the second wall corresponding to the first spring arm, and the first spring arm and the second spring arm form a spring receiving structure to connect with the electrical component.

- 7. The conductive terminal of claim 1 in which one end of the second wall forms a handle.
- 8. An electrical connector for connecting between an electronic component and a circuit board via a plurality of solder balls soldering onto the circuit bard, comprising:

an insulative housing forming a mounting surface adjacent to the circuit board and a receiving surface for supporting the electronic component, the insulative housing defining a plurality of terminal channels extending through the mounting surface and the receiving surface; and

5

10

15

a plurality of conductive terminals respectively received in the corresponding terminal channels, the conductive terminal having a first wall, a second wall connecting with the first wall and a third wall connecting with the second wall opposite to the first wall, a first horizontal portion extending and bending from one end of the first wall adjacent to the mounting surface toward the third wall, and a second horizontal portion extending from the third wall and corresponding to the first horizontal portion, a gap defined between an end of the second horizontal portion and an end of the first horizontal portion near the second horizontal portion so that the first horizontal portion and the second horizontal portion form a structure for locating the solder ball.

- 9. The electrical connector of claim 8 in which the first horizontal portion and the second horizontal portion of the conductive terminal are in a same plane.
- 10. The electrical connector of claim 9 in which the first horizontal portion, the second horizontal portion and the mounting surface of the insulative housing are in a same plane.
- 11. The electrical connector of claim 8 in which the first horizontal portion, the second horizontal portion have a certain angle and bend toward the contact portion of the conductive terminal.

WO 2004/068642 PCT/US2004/002820

12. The electrical connector of claim 8 in which the first horizontal portion defines a first recess at its end thereof and the second horizontal portion defines a second recess at its end thereof, the first recess and the second recess form a locating space receiving the solder ball.

- 13. The electrical connector of claim 8 in which the contact portion comprises a first spring arm formed on one side of the first wall and a second spring arm formed on one side of the second wall corresponding to the first spring arm, and the first spring arm and the second spring arm form a spring receiving structure to connect with the electrical component.
- 14. The electrical connector of claim 8 in which one end of the second wall of the conductive terminal forms a handle adjacent to the receiving surface.